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Revitalizing universities through faculty renewal

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Introduction

Canadian universities stand at a crossroads. They are facing an unprecedented opportunity -- a chance to hire as many as 3,000 new faculty a year over the coming decade. Universities have not been faced with this type of hiring opportunity since the 1960s. What makes this even more notable is the fact that universities have lost about 3,500 faculty since 1992 due in large part to universities' inability to replace retiring faculty due to cuts to university core budgets. Universities are now in a position to make up some lost ground.

A combination of factors -- both internal and external -- have created the right conditions for faculty renewal to begin to take place. Student enrolment is expected to grow about 20 percent by 2010 due to demographic and participation rate increases. This growth, coupled with a continued number of faculty retirements over the next 10 to 12 years, will place strong pressure on universities to begin rebuilding their ranks through replacement and growth.

Universities have also embarked on various institutional renewal initiatives in the past few years. These have important implications on faculty numbers and the types of faculty being sought. Examples abound of Canadian universities reshaping their curriculum or restructuring the way research is conducted in order to respond to changing public expectations and to keep pace with international trends. In order for an institution to grow, to change, and to do things differently, it needs the right faculty in place to make it happen.

The good news is that

Highlights

- Canadian universities are facing an unprecedented opportunity to restore and grow their faculty ranks. Universities' combined hiring needs are projected to be between 2,500 and 3,000 new faculty a year over the next 10 years.
- There are several reasons behind the expected hiring push. First, student enrolment is projected to grow approximately 20 percent due to demographic and participation rate increases. Second, Canada's professoriate is aging, which means that universities will have to start replacing a greater number of retiring faculty. Third, in order to maintain an acceptable level of quality in the face of the challenges outlined above, universities will need to restore the 3,500 faculty that have been cut over the past few years.
- Faculty renewal facilitates institutional renewal as well. Through faculty appointments, institutions can create new academic programs, make changes to the curriculum or strengthen key disciplines and research programs.
- Today's faculty candidates are arguably more qualified than ever before. This is partly explained by the fact that universities have been hiring only 900 new faculty a year over the past few years.
- Now that universities are gearing up to hire in large numbers again, the talent pool will become depleted more quickly.
- Universities are gearing up for increased competition by introducing new recruitment tactics and faculty incentives.

governments are showing signs of a willingness to support faculty and institutional renewal. For the first time in this decade, provincial governments are starting to reinvest in higher education. They recognize the serious erosion that has taken place in university core budgets and they appear to understand that, in order to continue placing such high expectations on universities, governments will have to start reinvesting in higher education.

This Research File looks at student enrolment growth, faculty aging and attrition rates, institutional restructuring, and changing government and public expectations, to show how this combination of factors has created an unprecedented opportunity for renewal. It also explores how universities are using faculty renewal in a strategic way to complement institutional renewal priorities. A worrisome question plaguing university administrations, however, is how universities can continue to hire strategically if the competition for new faculty intensifies dramatically.

A major unknown variable in this equation is whether there will be enough resources to allow universities to extensively renew their faculty. AUCC's faculty projections are based on several assumptions -- one very important one being that government funding of universities will increase in order to pay for new faculty. It will be very difficult, if not impossible, for institutions to grow if additional resources don't flow.

Population push

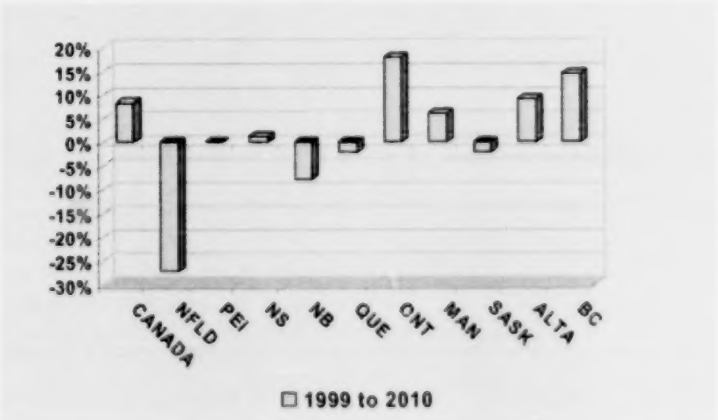
Enrolment is arguably the most important external factor affecting faculty renewal. Student enrolment increases will have a major impact on the need to hire more faculty over the coming decade. New faculty are needed to restore and maintain an acceptable level of quality in Canadian universities. New dollars will be needed to provide teaching, research and scholarship and advisory services to an increasing number of students.

Total full-time enrolment is expected to grow 20 percent over 10 years because of significant increases in the youth population and a rise in participation rates. The baby boom echo -- the children of baby boomers -- make up a significant part of Canada's population. The first batch of "echo kids" is just beginning to reach university age, and this cohort will continue to grow over the next 15 years. But the growth in youth population will be unevenly distributed across the country. Ontario, Alberta and British Columbia will experience strong growth, but the Prairies will witness either limited growth or slight declines. In the east, all provinces except Nova Scotia will face either no growth in population, small declines, or as in the case in Newfoundland, a drastic decline. That said, even in most provinces where population declines are expected, a relatively small increase in participation rates can offset a decline in population.

Participation pull

Participation rates are also expected to increase in the coming decade due to a host of reasons. Participation rates are affected by many interrelated factors, but perhaps the most significant factor is the increasing value of a university degree in the market place. Preparing students for the labour market is not the primary

Population increase among 18 to 21 year- olds will be unevenly distributed across the country



function of universities, but it is clear that students increasingly consider labour market factors in their decision to attend university. Most young people are well aware that the fastest growing occupations in today's knowledge based economy are those that require a university degree. They also know that the highest-paying occupations also demand the highest levels of education. These factors paint a clear picture to young people that it still pays to go to university.

Many studies have shown that children are far more likely to attend university if one or both of their parents have completed a university degree. Many more baby boomers have completed degrees than the generation that preceded them -- 17 percent of today's 45 to 54-year-olds hold a degree, compared to just six percent of that age group 15 years ago. Since many of the boomers' children are about to complete secondary school, it stands to reason that this group will follow in their parents' footsteps, thus yielding upward pressure on university participation rates.

Participation rates are also likely to increase as the participation gap narrows between men and women. More men attended university than women at the beginning of the 1970s, but by 1980, women had caught up. Both sexes had participation rates of about 10 percent. Since then, the rate for women has nearly doubled to almost 21 percent and the rate for men has grown to just over 14 percent -- seven percentage points behind women. The gap between men and women is not sustainable over the long run. More and more men will be drawn into high-paying, white-collar "knowledge jobs" that require a postsecondary education and a wide range of skills. Consequently, more and more men will seek a university degree in order to gain a greater share of these high-growth occupations.

Even a very small increase in participation over the next 10 years -- a projection of 1.3 percentage points for women and 2. 3 percentage points for men -- would have a huge impact on enrolment. This very conservative estimate of participation rate increases, coupled with population growth, would see total full-time enrolments increase in the range of 20 to 25 percent, from the current number of 575,000 students to about 700,000.

The first prerequisite for meeting expected growth in enrolment is to expand the physical and human resources of universities. The funding situation facing universities has become critical in recent years due in large part to a shift in public sector resources away from the university sector. As it stands, universities will be hard pressed to cope with increased enrolment. Without additional resources, quality and accessibility may be jeopardized.

Faculty aging, faculty leaving

At the same time as universities are anticipating increases in enrolment, they are also facing a depleting faculty pool. Universities have already lost about 3,500 faculty in the past five years due to normal attrition from early retirement programs. Despite the large number of faculty that left the system between 1992 and 1997, the professoriate continues to age due to non-replacement of departing faculty. The average university professor in Canada is 49 years old, which is generally older than the average age of professors in other OECD countries. The bulge of professors who were in

Projected enrolment increases for men and women

their late 30s in the 1970s is now approaching their late 50s. As we move into the next decade, many of these professors will retire, thus creating significant faculty replacement demand.

The combined impact of growth and retirements will significantly increase the hiring opportunities available to universities, especially in the short term. Universities will need to hire between 1,200 and 1,400 faculty a year over the next six years just to meet enrolment growth and to make up for the 3,500 faculty who left over the past few years. Universities will also need to hire an additional 1,300 to 1,600 professors a year over the same period to replace departing and retiring faculty. Universities' combined hiring needs are thus projected to be between 2,500 and 3,000 new faculty a year. To put these hiring needs in perspective, in recent years universities have been hiring fewer than 1,000 faculty a year.

After 2006, universities will need to hire fewer faculty to meet growth demand, but they will continue to have to replace faculty at an even higher rate. By 2010, universities will have had to replace approximately 20,000 departing faculty. The total number of new faculty hired for replacement and growth is expected to reach more than 30,000 by 2010 -- almost as many faculty as there are now in our universities. These numbers represent a unique opportunity for universities to revitalize themselves.

Strategic replacement

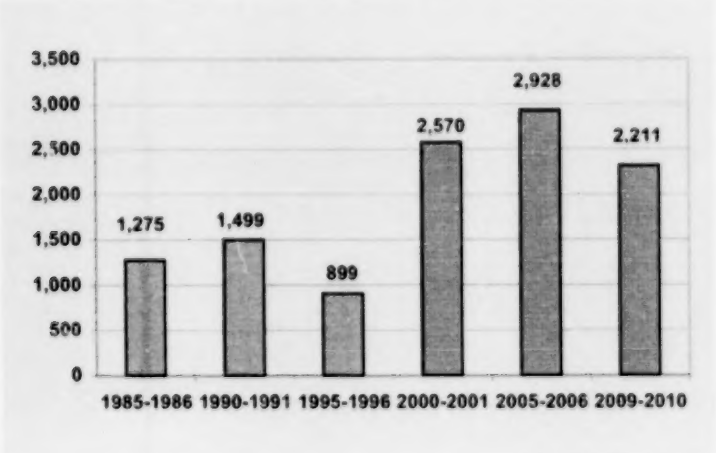
The fact that universities will soon be hiring in greater numbers means that they will also have a greater opportunity to hire strategically. Deans and department heads will have more flexibility in deciding whom they want to hire and in which disciplines. Replacement hiring most often entails filling a position that was vacated by a retiring or departing faculty. Hiring for growth, on the other hand, allows for a greater number of possibilities. For example, a university may decide to create a new academic program or add to its expertise in an emerging discipline through the hiring of new faculty. Either way, the university has much more leeway in its hiring decisions. Universities have made strategic hiring decisions over the past few years, but having additional resources for renewal makes such decisions easier. Institutions are in a much better position to engage faculty who dovetail with their strategic priorities.

What is the link between faculty renewal and institutional renewal? Faculty appointments enable universities to make changes to their academic programs and to pursue new strategic directions. If an institution is to grow, to change or to be responsive to public expectations, it will require the right number of faculty in place -- and the right type of faculty -- to make change happen.

In a report on faculty renewal commissioned by AUCC, Robin Farquhar says that universities are entering a second wave of early retirements.[1] The first wave of early retirements, which hit universities in the mid-1990s, was a cost-saving tool. Severe cuts in government funding meant that universities had no choice but to reduce the number of their employees. Early retirement packages were offered to faculty across all departments in the hope of cutting salaries.

Many universities succeeded. Attrition of faculty aged 55 to 65 amounted to about 250 a year at the

Faculty hiring to triple in the next five years



beginning of the decade. By 1997, that number had jumped to about 1,000 annually. More than 50 universities have five percent fewer faculty than they did in 1992, while 15 universities have 10 percent fewer. Overall, Canadian universities have replaced only half of all departing faculty in the last few years.

Although government funding has not yet been restored to previous levels, cost saving is not the sole reason behind the latest round of early retirements at universities. Some universities are offering a limited number of early retirement packages in strategically-chosen areas in which universities wish to see change. According to Farquhar, this second wave has two objectives: to reshape an institution by improving quality and diversity, and to start replacing older faculty with younger recruits in anticipation of increasing competition for faculty.

The low level of hiring that has occurred over the past six years has been a relatively easy exercise, since universities have had a large pool of talented prospects to choose from. Now that universities are gearing up to hire in larger numbers again, the depth of the talent pool will deplete more quickly. Not only will universities be competing with other schools in Canada and the United States, they will be facing stiff competition from governments and private firms, which are luring away graduate students and young faculty in select fields with high salaries and other benefits. Some universities are gearing up for renewal in the short-term as a strategy to beat the competition.

Difficult decisions

University administrators are under tremendous pressure to make the right decisions regarding faculty appointments, especially during times of fiscal restraint. For example, determining which departments should be accorded new appointments and which must wait their turn is a tough call. It is a decision that often sparks fierce inter-departmental rivalry. Many administrators are now pooling vacated positions and redistributing them across the institution on a competitive basis. This method can obviously create tension in the departments that come out on the losing side. As the University of Toronto stated in its January 1999 planning document, there is a lot at stake in hiring decisions.

"Decisions made in the next decade, in determining the areas in which appointments are to be made and in fulfilling each position, will determine the shape and face of the university's faculty for well into the twenty-first century. There is nothing more important for the university than planning and making these appointment as well as we possibly can." [2]

To be effective, faculty replacement and the creation of new positions should fit with the overall mission of the university and the academic direction of the department. If, for example, a university plans to set up an interdisciplinary program, thought has to be given to what the faculty needs of this new program will be. Does the present faculty complement meet the teaching and research needs of this new program? Is there an opportunity for the university to hire someone with unique qualities and skill sets to meet the new program requirements? Universities can use new appointments to fulfill institutional objectives such as strengthening their expertise in a particular field or making changes to the curriculum.

Growing expectations

Institutional renewal initiatives are often the result of public consultation exercises. It is clear that public expectations of Canadian universities have never been higher. The core mission of universities – teaching, research and community service – continues to be their raison d'être. At the same time, however, governments and the public are increasingly looking to universities to help prepare people for the work force through training and skills development. As the recipients of federal funding for research, universities are also expected to bolster the Canadian economy through new applications of knowledge and technology transfer.

Just as institutions are continually being strained, individual faculty members are also being stretched like never before. Faculty are expected to devote more time to teaching, provide more support to students, and conduct innovative research – all with $1 billion fewer resources in the system for

operating support than five years earlier. In response to these cuts, universities have had to restructure and rationalize programs, which has translated into heavier teaching loads, larger class sizes and reduced administrative support.

Universities have worked hard to maintain the quality and accessibility of higher education despite per student funding being down an average $1,500 since 1993. The creation of new academic programs, innovative uses of new technologies and changes to the curriculum are just a few examples of some of the rejuvenation or renewal efforts presently under way at Canadian universities. These types of innovations will be difficult to sustain in the long run, however, without additional resources.

What's hot, what's not

Like all institutions, universities follow certain trends. Most of today's trends are analysed in the current literature on higher education. Michael Gibbons from the United Kingdom is among the higher education writers whose work has had particular significance to Canadian universities.[3] Gibbons' thesis about the new mode of production of knowledge and its impact on research has affected how research is being carried out and supported in universities.

Donald Kennedy, author of *Academic Duty*, as well as the Carnegie Foundation have done a lot of work recently on the importance of undergraduate teaching in research-intensive universities. The Boyer Commission on Educating Graduates in the Research University -- a commission set up by the Carnegie Foundation for the Advancement of Teaching in 1995 -- encouraged universities to draw on their research resources to strengthen undergraduate programs. The rationale was that undergraduates learn more through inquiry than simple one-way transmission of knowledge. The Boyer report, *Reinventing Undergraduate Education: A Blueprint for America's Research Universities*, also recommended that undergraduates be given an opportunity to acquire certain skills over the course of their degree, gain a better appreciation of the arts, humanities and science, and learn how disciplines interact with other disciplines.[4]

A quick scan of Canadian universities reveals that many are adapting some type of institutional change in keeping with the Boyer report's recommendations. For instance, several universities have set up, or are in the process of setting up, foundation year programs for first-year students. The rationale behind such Year One programs is to target the special needs of first-year students and to ease their transition from high school to postsecondary education.

First-year programs vary widely across Canadian institutions. Some programs offer a very broadly-based curriculum in order to expose students to as many arts and science disciplines as possible before they have to declare a major. Other foundation year programs introduce students to the concept of interdisciplinary studies through thematic linkages of first-year courses. Some programs are available to only a small number of students, while others are open to all. Most first-year programs build in a mandatory literacy and numeracy component, as well as a second language requirement.

Another noticeable Canadian trend in institutional renewal is the rising significance of interdisciplinary studies and research. Interdisciplinary studies have existed for a long time, but enrolments have traditionally been small and research dollars scarce. There has been movement in the past few years, however, to try to bring interdisciplinary studies into mainstream academic programs. In the current debate on undergraduate education, many experts identify interdisciplinary studies as a key learning objective. They see tremendous benefit in exposing students to the application of knowledge of one discipline to another.

On the research front, the merits of the interdisciplinary approach resonate with both researchers and research funding agencies. The soon-to-be created Canadian Institutes for Health Research were designed to integrate Canadian health research and break down barriers between the different health sectors. The challenge for universities, then, is to generate this type of enthusiasm and support for interdisciplinary studies on the educational front.

Cream of the crop

Given the improvements in the way research is conducted and the way classes are taught, it is little wonder that today's candidates for faculty appointments appear better equipped and qualified than ever before. PhDs entering the academic profession have taken their cues from the ever-increasing expectations being placed on university professors. Today's professors must be Internet savvy; they must be able to apply their expertise in more than one discipline; and they must demonstrate a flair for teaching. New faculty know what is expected and they appear to be up for the challenge.

Robin Farquhar's study found that most of the deans and department chairs he interviewed were "genuinely astonished at the superior capabilities of today's candidates for faculty appointments." [5] Most candidates can demonstrate prior teaching experience and several have experience working with government and industry. A large number have published research results and have access to research funding. Almost all are computer literate and can teach in more than one discipline.

Their high level of quality is also reflective of the fact that universities have been hiring only about 900 new faculty a year over the past few years. Those candidates who were fortunate to gain tenure-track positions during this time represent the "cream of the crop" of PhDs and post-doctoral candidates. Because faculty appointments have been so limited, a huge number of postdocs have had extra time to hone up on their teaching skills and to build up their research portfolios.

> *"What is needed now is a new model of undergraduate education at research universities that makes the baccalaureate experience an inseparable part of an integrated whole. Universities need to take advantage of the immense resources of their graduate and research programs to strengthen the quality of undergraduate education, rather than striving to replicate the special environment of the liberal arts colleges."*
>
> *---Boyer Commission*

With the hiring numbers projected in the next 10 years, it is questionable whether the quality of new faculty appointments will continue to be as impressive. Some universities have reason to worry that the best and brightest faculty will be drawn to top universities in the United States and Canada, as well as private sector companies. Some worry about the "poaching effect", which sees larger universities in Canada "raiding" top personnel from medium-sized institutions, while the medium-sized institutions raid faculty from the smaller universities. Poaching is already a problem for some universities, but it could get much worse when the competition for new faculty heats up.

Revving up recruitment

There are signs that Canadian universities are gearing up for this new era of increased competition. University administrators are using new recruitment tactics and faculty incentives to try to lure new faculty to their campuses, and to keep their top quality faculty in place. Traditional print forms of recruitment are being supplemented by more strategic marketing tools such as Web sites, electronic bulletins and list serves to disseminate important information both internally and externally. Farquhar found that universities have also become much more pro-active in their attempts to fill positions. Increasingly, universities approach the people they want to hire first rather than wait for them to apply.

Faculty advertising in journals such as *University Affairs* and the *Canadian Association of University Teachers (CAUT) Bulletin* has also undergone interesting changes in recent years. AUCC commissioned a study by Heidi Julien from Dalhousie University to look at changes in faculty advertisements placed in *University Affairs* from 1989 to 1998.[6] Although

the study did not reveal any major shifts in advertising, there were a few discernable trends, especially in some of the more recent editions of *University Affairs*.

A noticeable trend is that universities are making greater use of display ads, which are more visible and thus attract more attention. Display ads can often bundle numerous positions from a variety of departments together under one banner. Another advertising trend is the increasing reference to university Web sites. Web sites enable institutions to provide additional information to interested candidates. According to the Julien study, 11 percent of ads listed Web addresses for that purpose.

A glance through a recent edition of *University Affairs* reveals that universities are beginning to adopt unique approaches to faculty advertising. More and more ads are not only describing the position available, but are actively trying to "sell" the university as an ideal place to work and promoting what it has to offer in terms of location, lifestyle and amenities. Some institutions regularly extol the virtues of their campus, climate and geographical location in an effort to attract potential candidates. Other ads emphasize the quality of their research facilities, library holdings, and other resources available to faculty.

One Canadian university recently advertised a dozen or more arts and science positions in a full-page ad. The ad began with a statement, which read that the faculty of arts and science was strategically rebuilding its professorial ranks by hiring 50 additional tenure-track professors over the next three years. Clearly, this institution was trying to get ahead of the game by anticipating its own hiring needs and trying to attract candidates earlier rather than later.

Upping the ante

In addition to changes to faculty advertising, universities are expanding their use of recruitment incentives to attract desired candidates. It is now more common for universities to offer private sector-style incentives such as salary top-ups, access to university-owned housing at modest rental rates, secured loans for purchasing homes, access to real estate services, and job placement assistance for spouses. In cases where a candidate's spouse is also an academic, some universities are making every effort to hire the partner in addition to the recruited faculty member. This sometimes requires administrators to "create" a position in the spouse's discipline.

As controversial as this policy may be, spousal hiring can actually generate greater institutional loyalty because faculty appreciate the fact that universities are being sensitive to people's personal lives. As the faculty recruitment effort heats up, universities will be under more pressure to make these types of accommodations.

> *"Canadian universities are at different stages in the renewal process – they are either in retrenchment, renewal or retention mode. Some universities in Canada are still firmly stuck in retrenchment mode."*
>
> *---Robin Farquhar*

Uneven playing field

In noting these changes to recruitment and advertising strategies, it is evident that some universities are farther along than others. Farquhar attributes this phenomenon to the fact that Canadian universities are at different stages in the renewal process – they are either in retrenchment, renewal or retention mode. Some universities in Canada are still firmly stuck in retrenchment mode. They continue to reduce faculty ranks through early retirements, and they replace only about half who leave. Even universities operating in retrenchment mode, however, are planning for the day when they will have enough resources to begin hiring again. A second group of universities has already reached the light at the end of the tunnel and has begun to renew their ranks with strategic faculty appointments. Only a few universities have embarked on renewal and are now trying to hang on to their new appointments in the face of increasing competition.

What danger could this level of differentiation potentially have on Canada's higher education system? Farquhar argues that Canada runs the risk of creating a dual system of haves and have-nots, with the haves growing richer (in their ability to attract and retain faculty) and the have-nots becoming poorer. The federal government has become aware of this danger. In his February 2000 budget, the federal Minister of Finance recognized that "experience is also showing that not all institutions of higher learning nor all regions of the country have the same capacity to exploit the opportunities that have been created. Efforts must be made to ensure that the government's plan for innovation and skills can benefit Canadians in all regions." Considerable attention and effort is currently directed at finding ways to assist universities enhance their research competitiveness in national competitions.

Conclusion

Faculty renewal will be a "top of mind" issue for all Canadian universities as they plan for the next decade and beyond. Enrolments are expected to rise dramatically due to population growth and participation rate increases. Faculty members are getting older and an increasing number of them will retire over the coming years. Moreover, the type of education that Canadians and governments have come to expect from universities requires the right number of faculty, and the right quality of faculty. These factors combined will put strong pressure on universities to begin rebuilding their ranks through faculty replacement and growth. Universities will have an opportunity to hire as many new professors over the next 12 years as there are currently in the system.

Faculty renewal of this magnitude will require a tremendous influx of resources to university core budgets. If provincial governments do not make postsecondary education a higher spending priority in the short term, the quality of university education could erode. Access to university might also be jeopardized if universities do not have the space or resources to welcome additional students. Canada's international standing in educational attainment could fall as well.

Since education is viewed as one of the hallmarks of a healthy, productive and innovative society, the time to reinvest is now. This unique opportunity to renew Canada's universities and academic faculty should not pass by.

Endnotes

[1] Farquhar, Robin H., *Retrenchment, Renewal, and Retention: the Three Rs of Institutional Revitalization in Canadian Universities*, a report prepared for the Association of Universities and Colleges of Canada, October 1999.

[2] University of Toronto, Raising Our Sights: The Next Cycle of White Paper Planning - Key Priorities for 2000-2004, January 1999.

3 Gibbons, Michael et al, The new production of knowledge, Sage Publications, Stockholm: 1994.

4 The Boyer Commission on Educating Undergraduates in the Research University, Reinventing Undergraduate Education: A Blueprint for America's Research Universities, New York, 1998.

5 Farquhar, op.cit., p. 5.

6 Heidi E. Julien, Ph.D., An Examination of Advertisements for Academic Positions in Canadian Universities and Colleges, 1989-1998, a study conducted for AUCC, July 1999.